

The impact of dental treatment and age on salivary cortisol and alpha-amylase levels of patients with varying degrees of dental anxiety

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Abstract

The purpose of this study was to assess the salivary cortisol and salivary alpha-amylase levels in children aged between 6-9 years.

Total of 1567 patients were screened, a total of 151 patients completed the study, patients' heart rate on recall, salivary cortisol and salivary alpha-amylase were compared between the groups.

Showed that salivary cortisol and salivary alpha-amylase had a significant association with the level of dental fear. The phobic patients had the highest levels of salivary cortisol and salivary alpha-amylase with no significant associations observed with either heart rate or extent of dental treatment. Control and anxious patients had significantly lower amylase levels when compared to phobic patients.

Within the limitations of this study we can conclude that salivary amylase is an indicator of acute stress that can differentiate between anxiety and dental fear; while salivary cortisol appears to be a marker of long-term stress that lacks the sensitivity to differentiate between the two.



Biography:

Majed Almuammar completed his BDS, Ms, ABPD, FAAPD, FICD. He worked as a consultant Pediatric Dentistry, King Abdulaziz Medical City, in National-Guard, RIYADH, SAUDI Arabia, Associate Professor at King Saud bin Abdulaziz university, RIYADH, Saudi Arabia. He finished certificate in pediatric dentistry at New York university on July 1996. He had done Master of Dental Material from same university (New York unit) on 1997. He certified as an American board in pediatric dentistry in the year of 2000. He was a fellow of American

academy of pediatric dentistry in the year 2001 and International College of Dentistry on the year of 2007. Seven publications done in known journals. He worked as Director of the residency program in national-Guard in the center region from the year 2000 – 2011. He involved in administration as a divisional head in pediatric dentistry and Orthodontics department for several years and involved in many committees. He attended as an invited speaker in international symposium for several occasions.

Speaker Publications:

1. Majed Almuammar, Gholami H, Pagni S and Weber H-P (2018) Survival rates of short dental implants (≤ 6 mm) compared with implants longer than 6 mm in posterior jaw areas: A meta-analysis. *Clinical Oral Implants Research* 16:8-20.
2. Majed Almuammar, Abrahamsson I, Chen S, Mahallati R, et al.
3. Majed Almuammar and Jung R E (2015) EAO Supplement Working Group 4 – EAO CC 2015 Short implants versus sinus lifting with longer implants to restore the posterior maxilla: a systematic review. *Clinical Oral Implants Research* 11:154-169.

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